



**Lower Pipe Creek Restoration Project  
Public Draft Environmental Assessment  
Fisheries Division**

February 2010

**Environmental Assessment for the improvement of fisheries habitat and bank stabilization on lower Pipe Creek.**

**PART I: PROPOSED ACTION DESCRIPTION**

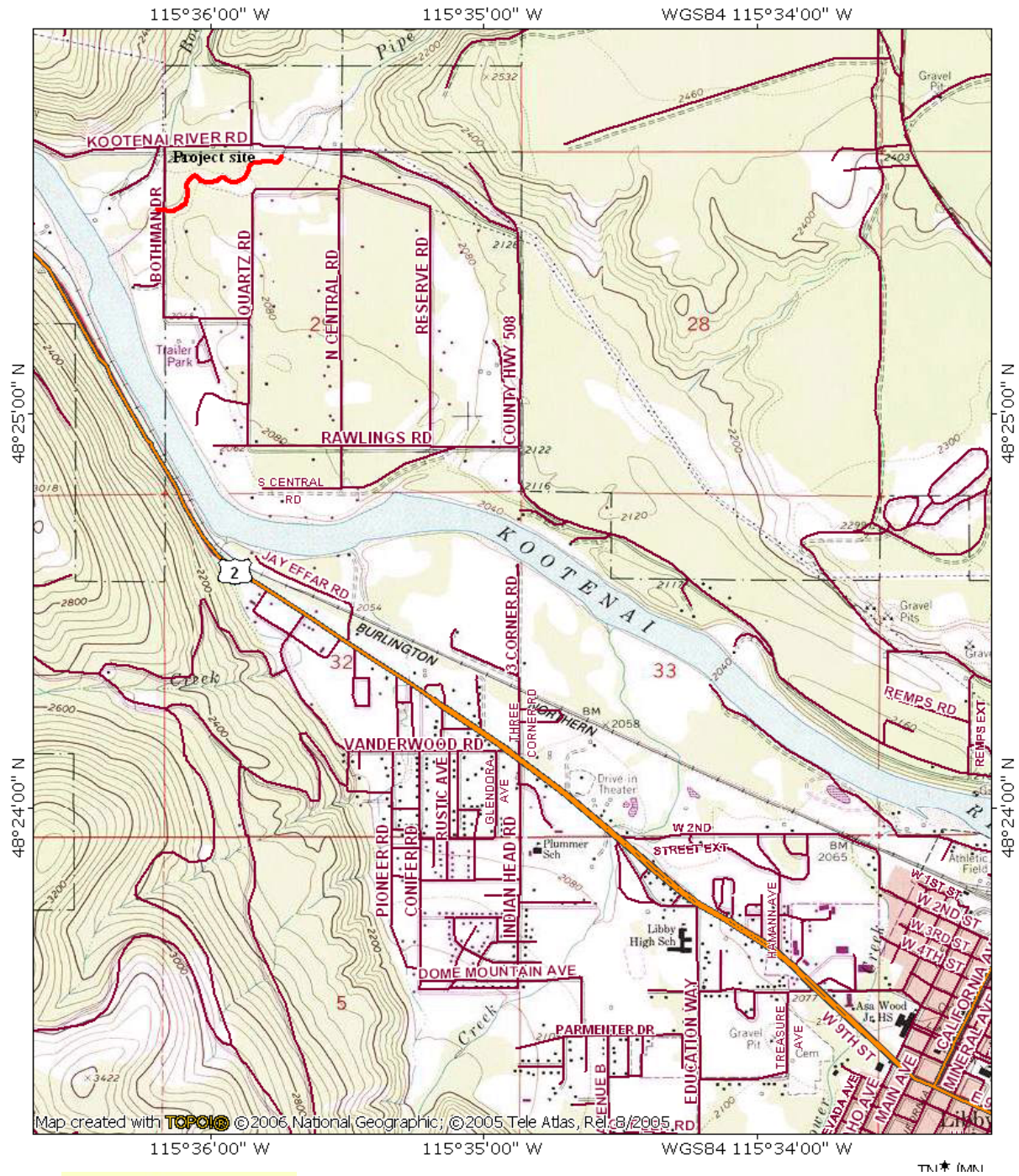
**A. Type of Proposed Action:** Montana Fish, Wildlife & Parks seeks to improve fisheries habitat, stabilize stream banks, and restore a healthy riparian community on lower Pipe Creek.

**B. Estimated Commencement Date:** The installation of the stream restoration project is scheduled to occur in July or August 2010 and may include periodic maintenance as needed over the next 7 years.

**C. Name and Location of the Project:** This project is referred to as the Lower Pipe Creek Restoration Project, and the purpose of the project is to improve fisheries habitat, stabilize stream banks, and restore a healthy riparian community on lower Pipe Creek. This project will be constructed on Pipe Creek, located approximately 2 miles northwest of the city of Libby, Montana. Specifically, the project is located within Township 31 North, Range 31 West, Sections 29 and 30, Lincoln County, Montana (Figure 1). The project will occur entirely on private property located on nine privately owned parcels adjacent to Pipe Creek beginning at approximately 350 feet below Kootenai River Road Bridge and proceeding approximately 2,450 feet downstream to approximately 300 feet below Bothman Drive Bridge.

**D. Project Size (acres affected):** Pipe Creek is a third order tributary to the Kootenai River. The proposed project would occur entirely within the floodplain and would consist of work within the active stream channel and existing riparian area of approximately 2,450 feet of lower Pipe Creek. The proposed stream channel would vary between approximately 33-52 bankfull widths, which would encompass approximately 2.5 acres. Although the proposed project would be constructed within the active stream channel and floodplain, five residences exist adjacent to the stream within the area.

1. Developed/Residential – 0 acres
2. Industrial – 0 acres
3. Open space/Woodlands/Recreation – 0 acres
4. Wetlands/Riparian – The Lower Pipe Creek Restoration Project would be located within the active stream channel, floodplain, and riparian area of Pipe Creek. The total footprint of this project would be approximately 2.5 acres.
5. Floodplain – 2.5 acres
6. Irrigated Cropland – 0 acres
7. Dry Cropland – 0 acres
8. Forestry – 0 acres
9. Rangeland – 0 acres



**Lower Pipe Creek Restoration Project**  
**Project #199500400**  
**Lower Pipe Creek, Lincoln County, Montana**  
**Sections 29 & 30, Township 31N, Range 31W**  
**LIBBY QUAD**

Figure 1. Location of the Lower Pipe Creek Restoration Project.

## **E. Narrative Summary of the Proposed Action and Purpose of the Proposed Action:**

### *Background*

The watershed area of Pipe Creek is approximately 106 square miles (67,721 acres), with elevations ranging from approximately 2,900 feet at the confluence with the Kootenai River to over 6,000 feet at the watershed divide. A majority of the watershed originates on the Kootenai National Forest. Most of the precipitation occurs as snow, which melts between April and June on most years, although mid-winter rain-on-snow events occur periodically and can produce floods of significant magnitude. Within the proposed project area, Pipe Creek has a bankfull discharge, bankfull width, and gradient of approximately 400 cubic feet per second, 33-52 feet, and 1.5%, respectively. Westslope cutthroat trout (*Oncorhynchus clarki lewisi*), bull trout (*Salvelinus confluentus*), brook trout (*Salvelinus fontinalis*), and rainbow trout (*Oncorhynchus mykiss*) all exist in Pipe Creek, with the native fish species primarily inhabiting the upstream portions of the watershed. The resident fish community within the project area consists primarily of rainbow and brook trout. Migratory bull trout use this portion of Pipe Creek primarily as a migratory corridor. The stream channel within the project area has been subject to residential and urban infrastructure encroachment, removal of riparian vegetation, inadequate bridge capacities, and channelization. These activities have increased bank instability and erosion and reduced the quantity and quality of fish habitat within this section on Pipe Creek. The section of Pipe Creek within the proposed restoration project has been subject to residential and urban infrastructure encroachment, removal of riparian vegetation, inadequate bridge capacities, and stream channelization. Areas of the stream have been straightened and leveed to accommodate development in the floodway. Residential encroachment within the floodway and belt width of Pipe Creek has resulted in displacement of bank stabilizing vegetation, resulting in accelerated lateral extension of the stream channel and streambank and terrace erosion.

### *Purpose*

The purpose of the proposed project is to restore a 2,450-foot-long section of lower Pipe Creek and adjacent riparian corridor in order to promote stable stream channel function, enhance fisheries habitat, and maintain existing floodway conveyance.

### *Proposed Activities*

The proposed restoration project would occur on Pipe Creek beginning at approximately 350 feet below Kootenai River Road Bridge and proceeding approximately 2,450 feet downstream to approximately 300 feet below Bothman Drive Bridge. Several structures will be constructed in the course of this project. Table 1 summarizes the structure types and total length (feet) of each.

Table 1. Summary of the types of structures (count) and total distance (feet) in parentheses for the Lower Pipe Creek Restoration Project.

<b>Structure Type</b>	<b>Total Center Number (Feet)</b>	<b>Total Left Bank Number (Feet)</b>	<b>Total Right Bank Number (Feet)</b>	<b>Grand Total Number (Feet)</b>
Anchored Coir Log		2 (210)	3 (390)	5 (600)
Boulder Energy Dissipater	12 (275)			12 (275)
Boulder Grade Control	7 (280)			7 (280)
Engineered Logjam		6 (125)	6 (120)	12 (245)
Log Vane		3	4	7
Sod Brush Trench		2 (305)	3 (560)	5 (835)
Vegetated Soil Lift		4 (275)	6 (560)	10 (835)

A total of 7 log vanes and 12 engineered logjams will be installed throughout the project area. The log vanes and engineered logjams are both designed to provide bank stabilization by reducing near-bank stress and redirecting flow away from the bank. The structure is designed to allow fish passage at all flow levels and dissipate stream energy in the form of a downstream scour pool. A total of 12 boulder energy dissipater structures will be installed throughout the project area. The design intent of these structures is to reduce flow energy in meanders and redirect flow away from the banks. These structures are designed to provide interim streambed grade control in run features until natural streambed armoring/sorting processes develop and control long-term vertical stability. A matrix of large, immobile, and irregularly placed boulders forms the foundation of the structure. Gaps between boulders are filled with smaller, mobile alluvium, thus maintaining bed load transport through the structure. A total of seven boulder grade control structures will be installed in this section of Pipe Creek. The design intent of these structures is to ensure that floodwaters access the floodplain at or near the design bankfull discharge and fish passage is maintained. The structure is designed to provide interim streambed grade control in glide and riffle features until natural armoring/sorting processes develop and control long-term vertical stability. This project will install 10 (approximately 835 feet) of vegetated soil lifts, which are structures designed to provide site conditions directly along the stream channel that are suitable for growing riparian vegetation. Vegetated soil lifts are used in conjunction with other larger bank stabilization structures (engineered logjams and log vanes) to reduce bank erosion rates. This project also proposes to construct two additional types of structures to promote the revegetation of the riparian area. Five anchored coir log structures will be installed, which are designed to provide temporary physical and biological protection for the stream bank until deep, binding vegetation root mass becomes established. The coir logs provide a moist substrate for plant growth and protect plants growing adjacent to the log. A total of five sod brush trenches will also be installed during the construction of this project, which is a revegetation technique used to secure the back edge of sod mats to the edge of the bankfull channel along riffle and run sections of the stream channel. The brush trench will provide roughness along the channel bank and reduce potential for bank erosion. During overbank flows, the densely branching willows in the trench will trap sediments and naïve seed, and provide an environment for seed to germinate and grow.

The project would be constructed in July or August 2010, and additional maintenance activities may be required over the next seven years after project completion to ensure proper function of the structures. Initial construction is expected to occur over a 2-3-week period and will require the use of several pieces of heavy equipment, including 2 excavators, 2 dump trucks, a skid steer, and a front-end loader. Several best management practices will be employed during the construction of this project to limit stream turbidity.

The proposed construction period coincides with low flow conditions and is when bull trout are least likely to be present in the project area. Vegetation disturbance will be minimized to the extent practicable and limited to what is necessary for stream channel shaping. In addition the following BMPs will be adhered to during project construction.

1. Instream activity will be minimized and live water will be diverted to all practical extents, and sediment and erosion control fences will be installed where practical.
2. Equipment used near the water will be clean prior to construction in order to prevent the spread of noxious weeds and organic contaminants.
3. Equipment refueling will occur a safe distance from Pipe Creek.
4. All access sites will be removed upon project completion in order to minimize off road travel after project completion, and all disturbed soils will be revegetated with native grasses and shrubs.
5. Strict erosion control measures will be practiced. Best Management Practices that adhere to state standards will be practiced during project construction.
6. Construction equipment will be checked regularly for leaks, and an emergency spill kit will be on site during construction.
7. The following permits will be obtained from the respective agencies. A 404 permit will be obtained from the U.S. Army Corps of Engineers; a 318 permit from the Montana Department of Environmental Quality; a 310 permit from the Lincoln County Conservation District; and a flood plain permit from the Lincoln County Planning Department. All permits will be acquired prior to constructing this project.
8. Significant changes to project design or timing shall be coordinated with the USFWS.
9. Other than short-term combustion engine emissions from equipment, controlled burning, herbicidal application, or other airborne emissions are not expected during project construction.
10. No domestic or industrial chemicals will be discharged into Pipe Creek.

## **PART II. ALTERNATIVES**

### **Alternative 1: No Action**

If no action is taken, this segment of Pipe Creek will remain unstable for many years. This ongoing instability will result in continued bank erosion, excessive sediment loading, and the loss of fish habitat. Sediment loading adversely affects the project reach and stream reaches downstream of the proposed project. In addition, habitat for riparian-dependent wildlife will remain in a degraded condition. Recreational opportunities associated with fish and wildlife resources will remain reduced, and aesthetics will continue to be impaired.

### **Alternative 2: Restoration of Lower Pipe Creek (Proposed Action)**

Montana FWP is proposing to complete a stream restoration project on lower Pipe Creek. The project would occur in July or August 2010 and would include the installation of various structures within the bed and banks of Pipe Creek to enhance fisheries habitat, reduce stream bank erosion, and restore a healthy and functional riparian community. The project would occur on approximately 2,450 feet of Pipe Creek between Kootenai River Road Bridge and Bothman Drive Bridge. Overall, the project is expected to reduce long-term chronic bank erosion and increase channel stability and delivery of fine sediments within and downstream of the project area.

## PART III. ENVIRONMENTAL REVIEW

### A. PHYSICAL ENVIRONMENT

<b>1. <u>LAND RESOURCES</u></b>	<b>Impact Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
<b>Will the proposed action result in:</b>						
a. Soil instability or changes in geologic substructure?			X			1a.
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?			X			1a.
c. Destruction, covering, or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition, or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?			X			1a.
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				

**Comment 1a.** Soils along the stream margin would be disturbed by project construction, but would recover quickly following proposed revegetation efforts. However, the soil disturbance during the construction phase of this project is expected to be relatively short term and minor. Overall, the project is expected to reduce long-term chronic bank erosion and increase channel stability and delivery of fine and coarse sediments within and downstream of the project area through the construction of bank stabilizing structures and riparian revegetation efforts.

<b>2. WATER</b>	<b>Impact Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
<b>Will the proposed action result in:</b>						
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen, or turbidity?			X		X	2a.
b. Changes in drainage patterns or the rate amount of surface runoff?		X				
c. Alteration of the course or magnitude of floodwater or other flows?			X			2c.
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water-related hazards such as flooding?			X			2c.
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				.
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. Will the project affect a designated floodplain?		X				2c.
m. Will the project result in any discharge that will affect federal or state water quality regulations? (Also see 2a.)			X			2a.

**Comment 2a.** Construction activities for this project may slightly increase instream turbidity. However, these impacts are expected to be short term and minor, and will be minimized by implementing the following best management practices. This project will require a 318 Authorization from the Montana DEQ for instream turbidity produced during construction activities. The in-channel construction activities will be performed during July/August during low flow period to reduce turbidity. Construction in the dry conditions will be maximized to practical extents, stream crossings will be kept to a minimum, straw bails and silt fencing will be used to restrict sediment access to the stream channel, and a temporary diversion channel will be constructed to divert water away from construction areas. Construction activities will protect and preserve as much of the existing vegetation as possible, and restoration efforts to restore a



healthy functioning riparian community will minimize future sediment delivery to this section of Pipe Creek.

**Comment 2c.** As part of the permitting requirements for this project, Montana FWP was required to complete a no-rise hydraulic analysis (River Design Group 2009). The results of this analysis indicate that, for a 1% annual flood discharge of 1,900 cubic feet per second, proposed conditions will decrease the water surface elevation upstream of the Bothman Drive Bridge by more than five feet and intermittently increase the water surface elevation at select locations as a result of changes in the vertical profile required to reconnect the proposed channel with its adjacent floodplain. Results of an inundation analysis indicate that despite the slight increases in water surface elevations, the overall extent of flood inundation remains generally unchanged and does not increase the flood risk for existing structures adjacent to the study reach. In addition, basic stability checks for the proposed engineered logjam structures indicated sufficient factors of safety are maintained for failure due to buoyancy, sliding, and scour during the 1% annual flood.

<b>3. <u>AIR</u></b>	<b>Impact Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
<b>Will the proposed action result in:</b>						
a. Emission of air pollutants or deterioration of ambient air quality? (Also see 13c.)		X				
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns, or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. Will the project result in any discharge, which will conflict with federal or state air quality regulations?		X				

<b>4. <u>VEGETATION</u></b>	<b>Impact Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
<b>Will the proposed action result in:</b>						
a. Changes in the diversity, productivity, or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?			X			4a.
b. Alteration of a plant community?			X			4a.
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				4c.
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X			4a.
f. Will the project affect wetlands or prime and unique farmland?		X				

**Comment 4a.** The project will increase the diversity, productivity, and abundance of plants within the riparian community within the project area. This project is designed to increase stream channel and bank stability and reduce lateral and vertical stream channel migration, and as a result riparian vegetation is expected to recover. In addition, substantial effort is devoted to actively restore riparian vegetation within the project area to facilitate the rapid recovery of the riparian areas. The anchored coir log, vegetated soil lift, and sod brush trench structures are designed to restore the riparian community within the project area. Many of these plants (mostly willow species) proposed for use in these structures will be collected within a relatively short distance from the project site to ensure plant species were adapted to local environmental conditions. Reestablishment of a healthy riparian community will minimize the potential for invasion of noxious weeds within the project area. The overall negative impact on the vegetative community at this site during construction would be minor and not expected to have long-term impacts. In the long term, the project would be expected to restore function and health to the riparian community.

**Comment 4c.** On December 28, 2009, MFWP contacted the US Fish and Wildlife Service to determine if formal consultation regarding T&E species in the project area was needed. MFWP determined that there would be “no effect” to T&E plant species, so no formal consultation with the Service is necessary. The US Fish and Wildlife Service has not yet made a determination regarding FWP’s determination.

5. <u>FISH/WILDLIFE</u>	Impact Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
Will the proposed action result in:						
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?			X			5b.
c. Changes in the diversity or abundance of nongame species?			X			5b.
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?			X			5f.
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest, or other human activity)?		X				
h. Will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat?		X				5f.
i. Will the project introduce or export any species not presently or historically occurring in the receiving location?		X				

#### Comment 5b.

**Fish:** MFWP has conducted annual fish monitoring within the proposed project area since 2001 and has observed the following game fish species: westslope cutthroat, bull, brook, and rainbow trout, and mountain whitefish within the project area. Migratory bull trout use this portion of Pipe Creek primarily as a migratory corridor. MFWP has also observed several nongame fish species at this monitoring section, including sculpin (*cottus* spp.), longnose dace (*Richichys cataractae*), and redbreast shiner (*Richardsonius balteatus*). Construction activities for this project may have a minor impact on individuals. One of the primary purposes of this project is to improve fisheries habitat, which is expected to have a long-term beneficial population effect for these species of fish. Habitat improvements will be accomplished through increases in quantity, quality, and diversity of habitats, especially pool-type habitats with the project area.

**Amphibians:** Some amphibians, including spotted frogs (*Rana pretiosa*), western toads (*Bufo boreas*), long-toed salamanders (*Ambystoma macrodactylum*), and Pacific chorus frogs (*Pseudacris regilla*), may currently reside within or around the construction area, and the activity may have a minor impact on these individuals. However, the impact to the amphibian populations within the local area should be short term and minor.

**Comment 5f.** On December 28, 2009, MFWP contacted the US Fish and Wildlife Service to determine if formal consultation with the Service about T&E species in the project area was needed. MFWP determined that there would be “no effect” to T&E species except bull trout and that the restoration project “may affect, but not likely adversely affect” bull trout. As a result of these determinations, no formal consultation with the Service is necessary. The US Fish and Wildlife Service has not yet made a determination regarding FWP’s determination. We base this opinion on the following information.

Grizzly bears (*Ursus arctos horribilis*), Canada lynx (*Lynx Canadensis*), and grey wolves (*Canis lupus*) may also be present within the general vicinity of the project area, but no known birthing sites are known to occur in the immediate area. The effect of this project on these species is expected to be short term and minor or nonexistent, which would be similar to the effect on other birds and mammals within the area. MFWP based this assessment on the relatively small area of land disturbance, the relatively short period of time required to accomplish the project, and the close proximity of residential infrastructure within the general area. This project is not likely to have secondary effects, such as displacement, on any of these species for these same reasons. Kootenai River white sturgeon (*Acipenser transmontanus*) do not occur upstream of Kootenai Falls. White sturgeon critical habitat has been designated only for a section of the Kootenai River in Idaho (Federal Register 2008b). Pipe Creek is located above Kootenai Falls. Thus, since no white sturgeon inhabit Pipe Creek, and any turbidity resulting from this project will be localized and temporary, the project will have no effect on the white sturgeon population or their critical habitat.

Bull trout do inhabit Pipe Creek, and research conducted by MFWP indicates that bull trout found in Pipe Creek are genetically distinct from other populations found within the Kootenai River Watershed. However, the vast majority of the bull trout spawning and rearing activity occurs approximately 8-12 miles upstream of the proposed project area. MFWP has never observed a bull trout redd within the project area. Adult bull trout use this section of Pipe Creek as a migratory corridor, and juvenile bull trout occasionally use this section as rearing habitat. MFWP believes that most adult bull trout migrating upstream from the Kootenai River into Pipe Creek do so during the late summer or early fall after high summer water temperatures in lower Pipe Creek cool. The proposed restoration project should be completed prior to the beginning of the annual bull trout migration into Pipe Creek. MFWP has conducted annual electrofishing surveys within the lower section of the project area since 2001 and has only found 1 juvenile bull trout. Overall this project would have beneficial effects on all fish species residing in Pipe Creek, including bull trout as a result of the overall improvements to habitat. The completion of the proposed restoration work would have only minor or nonexistent impacts on bull trout and other fish species. MFWP bases this conclusion on the fact that the majority of the bull trout activity is located upstream, the project timing would limit bull trout exposure to disturbance and sedimentation, and best management practices will be used to minimize sedimentation and disturbance within the active stream channel.

## B. HUMAN ENVIRONMENT

<b>6. <u>NOISE/ELECTRICAL EFFECTS</u></b>	<b>Impact Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
<b>Will the proposed action result in:</b>						
a. Increases in existing noise levels?			X			6a.
b. Exposure of people to severe or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				

**Comment 6a.** This project would require an excavator to construct this project, which may result in a short-term and minor increase of noise levels during the construction period, which is expected to take approximately 10-20 days to complete.

<b>7. <u>LAND USE</u></b>	<b>Impact Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
<b>Will the proposed action result in:</b>						
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflict with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				

<b>8. <u>RISK/HEALTH HAZARDS</u></b>	<b>Impact Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
<b>Will the proposed action result in:</b>						
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?			X			8c.
d. Will any chemical toxicants be used?		X				

**Comment 8c.** During the summer of 2009, approximately 350 cubic yards of stream bank material that, based on visual inspection to potentially contain Libby Amphibole Asbestos (LA), was removed from two locations within the proposed project area. The material was riprap-sized rock that was placed along the north bank of the creek to protect private residences. The removal action was taken by the U.S. Environmental Protection Agency (EPA) Emergency Removal Program to minimize potential human and environmental exposure to LA. The materials were removed from two properties located at stationing 17+00 to 15+50 and 28+50 to 26+50 along residences located at 3623 and 3737 Kootenai River Road, respectively. The proposed stream restoration work will minimize excavation at these locations and will place additional streambed material over the locations where this material once existed. MFWP believes that any potential health hazard resulting from the exposure to LA will be minor to nonexistent, and we base this conclusion on the fact that EPA completed a thorough cleanup of the area, excavation will be minimized, and additional material will be placed over those locations.

<b>9. <u>COMMUNITY IMPACT</u></b>	<b>Impact Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
<b>Will the proposed action result in:</b>						
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				

<b>10. <u>PUBLIC SERVICES/TAXES/UTILITIES</u></b>	<b>Impact Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
<b>Will the proposed action result in:</b>						
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased use of any energy source?		X				
e. Define projected revenue sources?		X				10e.
f. Define projected maintenance costs?		X				10e.

**Comment 10e.** This project could cost approximately \$120,000-140,000, and would be shared among Montana FWP (with funding from Bonneville Power Administration through the Libby Mitigation Project) and the landowners. Maintenance costs are unknown, but are expected to be relatively low (less than 10% of the total project cost over a 10-year period) and would be the responsibility of the project contributors.

<b>11. <u>AESTHETICS/RECREATION</u></b>	<b>Impact Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
<b>Will the proposed action result in:</b>						
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings?		X				
d. Will any designated or proposed wild or scenic rivers, trails, or wilderness areas be impacted? (Also see 11a, 11c)		X				

<b><u>12. CULTURAL/HISTORICAL RESOURCES</u></b>	<b>Impact Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
<b>Will the proposed action result in:</b>						
a. Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?		X				
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				12c.
d. Will the project affect historic or cultural resources?		X				

**Comment 12c.** The project site is located within the aboriginal ranges of the Confederated Salish and Kootenai Tribes of the Flathead Nation and the Kootenai Tribe of Idaho. On July 20, 2007, cultural officers for these tribes were contacted. To date there have been no cultural or religious resources identified at the project site. There will be no impacts to historical, cultural, or religious values. In August 2007, Bonneville Power Administration conducted a cultural survey of the entire project area, and concluded that the no historic properties will be affected as a result of the proposed stream restoration project. The Montana State Historic Preservation Office was notified of this determination, but at this time has not corresponded regarding this determination.



<b>13. SUMMARY EVALUATION OF SIGNIFICANCE</b>	<b>Impact Unknown</b>	<b>None</b>	<b>Minor</b>	<b>Potentially Significant</b>	<b>Can Impact Be Mitigated</b>	<b>Comment Index</b>
<b>Will the proposed action, considered as a whole:</b>						
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects that are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard, or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. Is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e)		X				
g. List any federal or state permits required.						13g.

**Comment 13g.** The following permits would be required:

1. Montana Department of Environment and Water Quality 318 Turbidity Exemption Permit
2. Lincoln County, County Floodplain Development Permit
3. Montana Fish, Wildlife & Parks SPA 124 Permit and/or a 310 Permit from the Lincoln Conservation District
4. U.S. Army Corps of Engineers 404 Permit

## **PART IV. EA CONCLUSION SECTION**

- 1. Based on the significance criteria evaluated in this EA, is an EIS required (YES/NO)? If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.**

MFWP concludes that an EIS is not required for the implementation of this project. MFWP further concludes from the information presented in this document that the proposed activities will have either no impact or a positive impact on the physical and human environment.

- 2. Describe the level of public involvement for this project, if any, and given the complexity and the seriousness of the environmental issues associated with the proposed action, is the level of public involvement appropriate under the circumstances?**

The draft environmental assessment (EA) is being distributed to all individuals and groups listed in the cover letter. The EA will be placed on the MFWP web site, and legal notices will be placed in two local newspapers, the Western News and the Daily Inter Lake. Individuals that wish to provide comments to this document or obtain additional information can contact Jim Dunnigan at (406) 293-4161, Ext. 200.

- 3. Duration of comment period, if any:**

There will be a 30-day public comment period for this environmental assessment. Comments will be accepted through 5:00 p.m., Friday, March 19, 2010. Submit comments to: Montana Fish, Wildlife & Parks, Attention: Fisheries Biologist Jim Dunnigan, 385 Fish Hatchery Road, Libby, MT 59923, or e-mail to [jdunnigan@mt.gov](mailto:jdunnigan@mt.gov).

- 4. Name, title, address, and phone number of the person(s) responsible for preparing the EA:** Jim Dunnigan, Fisheries Biologist, MFWP, 385 Fish Hatchery Road, Libby, MT 59923, (406) 293-4161, Ext. 200.